

Silicon NPN Power Transistors

2N4910 2N4911 2N4912

DESCRIPTION

- With TO-66 package
- Low collector saturation voltage
- Excellent safe operating area
- 2N4912 complement to type 2N4900

APPLICATIONS

- Designed for driver circuits, switching and amplifier applications

PINNING

PIN	DESCRIPTION
1	Base
2	Emitter
3	Collector

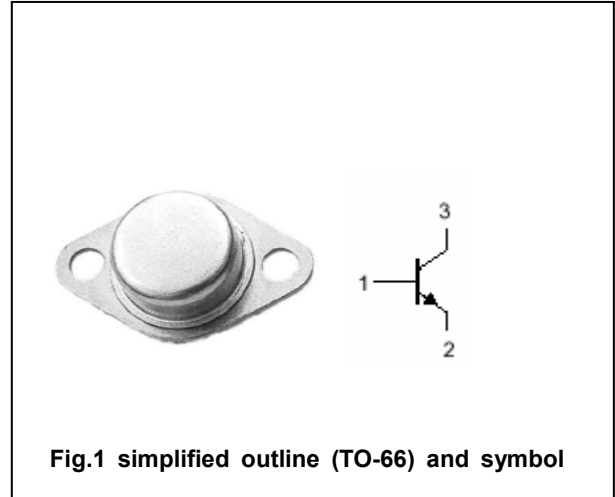


Fig.1 simplified outline (TO-66) and symbol

Absolute maximum ratings($T_a = \square$)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	2N4910	40	V
		2N4911	60	
		2N4912	80	
V_{CEO}	Collector-emitter voltage	2N4910	40	V
		2N4911	60	
		2N4912	80	
V_{EBO}	Emitter-base voltage	Open collector	5	V
I_C	Collector current		1.0	A
I_B	Base current		1.0	A
P_D	Total Power Dissipation	$T_c = 25 \square$	25	W
T_j	Junction temperature		150	\square
T_{stg}	Storage temperature		-65~200	\square

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	VALUE	UNIT
$R_{th\ j-c}$	Thermal resistance junction to case	7.0	\square/W

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CHARACTERISTICS

T_j=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT	
V _{CE0(SUS)}	Collector-emitter sustaining voltage	2N4910	I _C =0.1A ; I _B =0	40			V
		2N4911		60			
		2N4912		80			
V _{CEsat}	Collector-emitter saturation voltage	I _C =1A; I _B =0.1A			0.6	V	
V _{BEsat}	Base-emitter saturation voltage	I _C =1A ; I _B =0.1A			1.3	V	
V _{BE}	Base-emitter on voltage	I _C =1A ; V _{CE} =1V			1.3	V	
I _{CEO}	Collector cut-off current	2N4910	V _{CE} =20V; I _B =0			0.5	mA
		2N4911		V _{CE} =30V; I _B =0			
		2N4912		V _{CE} =40V; I _B =0			
I _{CEX}	Collector cut-off current	V _{CE} =Rated V _{CEO} ; V _{BE(off)} =1.5V T _C =150°C			0.1 1.0	mA	
I _{CBO}	Collector cut-off current	V _{CB} =Rated V _{CBO} ; I _E =0			0.1	mA	
I _{EBO}	Emitter cut-off current	V _{EB} =5V; I _C =0			1.0	mA	
h _{FE-1}	DC current gain	I _C =50mA ; V _{CE} =1V	40				
h _{FE-2}	DC current gain	I _C =500mA ; V _{CE} =1V	20		100		
h _{FE-3}	DC current gain	I _C =1.0A ; V _{CE} =1V	10				
C _{OB}	Output capacitance	I _E =0; V _{CB} =10V; f=1MHz			100	pF	
f _T	Transition frequency	I _C =250mA; V _{CE} =10V; f=1MHz	3.0			MHz	

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PACKAGE OUTLINE



Fig.2 outline dimensions